



NBII Central Southwest/Gulf Coast Information Node

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Background

The National Biological Information Infrastructure (NBII) <www.nbii.gov> is an electronic information network that provides access to biological data and information on our nation's plants, animals, and ecosystems. Data and information maintained by federal, state, and local government agencies; non-government organizations; and private-sector organizations are linked through the NBII gateway and made accessible to a variety of audiences

including researchers, natural resource managers, decision-makers, educators, students, and other private citizens.

Implementation of the NBII is being accomplished through the development of nodes that serve as interconnected entry points to the NBII and the information held by partners. These nodes function as fully digital, distributed, and interactive systems that focus on developing, acquiring, and managing content on a defined subject area (thematic nodes) or a



Chisos Mountain Range, Big Bend National Park

geographic region (regional nodes). One of the regional nodes being developed in 2001 is the Central Southwest/Gulf Coast (CSGC) Information Node.

Central Southwest/Gulf Coast Information Node

The CSGC Information Node is housed at the Houston Advanced Research Center (HARC) in The Woodlands, Texas. The CSGC region represents a wide range of biologically diverse communities. The region is undergoing rapid population growth and is also experiencing significant stress (e.g., drought, fires, floods and hurricane damage, deforestation, urban sprawl, and invasive species). In response to these increasing pressures on natural resources, management agencies and scientists have created research projects that are targeted at developing better ways to restore and/or manage these valuable resources.



Houston Skyline



All of these projects result in new data and information. The NBII will help integrate diverse existing geologic, water, biological, and other environmental data so that it can be analyzed and used to make informed decisions regarding the region's natural resources and ecosystems.

Current Initiatives

Initially, the NBII CSGC Information Node is focusing on several projects in Texas which are described below.

NAFTA Highway Environmental Permit National Environmental Policy Act

The NAFTA Highway runs from the Mexican border, near Brownsville, to the northeastern Texas border, eventually crossing the entire United States and:

- Represents a 1,000-mile north/south corridor.
- Encompasses numerous diverse regional ecosystems and urban environments.
- Requires the collection and analysis of a large amount of biological data.
- Costs approximately \$3.5 billion to construct creating numerous rural and urban jobs in Texas.

The NBII CSGC Information Node would help ingest, analyze, and



Sagebrush

disseminate biological information, as appropriate.

Big Bend National Park - 3-D Visualization

This project involves the collection and integration, within the CSGC Information Node, of biological and topographic data sets for Big Bend National Park in the Chihuahuan Desert of western Texas. This project will forge international partnerships to obtain and integrate data for both sides of the border (with specific focus on migratory species).

Bayou Preservation Association Stream Ranking and Internet Map Server

The Bayou Preservation Association, working with HARC, has ranked the relative ecological integrity of over 6000 linear miles of bayous and streams in Harris County, Texas, which includes Houston, the fourth

largest city in the United States. Field data (including visual biological survey information) and digital photographs of stream segments can be accessed via an Internet map server that includes 38 other spatial data layers (with information links) that are relevant to water conservation and management issues in the region. The CSGC Information Node will support the addition of biological and other environmental data, applications, and spatial analysis technologies to enhance the information resources provided by this site.

For More Information

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